

# A Quantitative Method for Identifying Specific Educational Needs Among CD Plus Medline Searchers: A Pilot Study

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The Eskind Biomedical Library of Vanderbilt University recently provided remote access to MEDLINE using CD Plus' OVID software. Remote users had previous experience searching MEDLINE with other systems (in particular, Grateful Med, SilverPlatter, and Notis,) but not with the CD Plus interface. Our concern was that prior experience with a system would inhibit searchers from using CD Plus' system features correctly.

This study was developed to provide a quantitative method for measuring the educational needs of remote searchers based on the use of specific features of the CD Plus system. Data generated by this study will be used to develop targeted educational programs and materials.

Transaction logs generated by remote CD Plus users over a two week period were analyzed. Discrete system features, such as the use of textword or MeSH term searching, were counted. Since typical search sessions involve more than the use of a single feature, system features were also considered in combination. Librarians experienced with CD Plus generated rules, based on the use of system features, defining "bad searches." For example, a rule might be developed to isolate textword searches that failed to use limits, subheadings, boolean operators, or MeSH terms properly. For example,

Line #	Search Statement
1	retinoid.tw.
2	review.tw.
3	1 and 2

The first search term, *retinoid*, has an equivalent MeSH term but it was not used. Experience suggests that MeSH terms, when available, should be used first, though not exclusively, in the search process. A second problem is the lack of use of the "limit" feature. *Review* is searched as a textword instead of making use of MEDLINE check tags supported through the "limit" feature of CD Plus. The result of the misuse of features in this case is the oversight of several key articles.

Rules were developed and applied to the transaction logs to determine the significance of each type of searching. Analysis of the data indicates that remote users misuse CD Plus in several significant ways. Author only or textword only searches are more the norm than the exception. In addition, searchers browse through too much information without applying appropriate limits. Search precision can be increased by combining terms or using limits such as "English." Figure 1 represents initial results when several rules were applied to the transaction logs.

Initial results of this study indicate that the methodology developed can be successfully used to determine search habits and develop educational materials. The method could also be used to evaluate the effectiveness of educational program and materials instituted.

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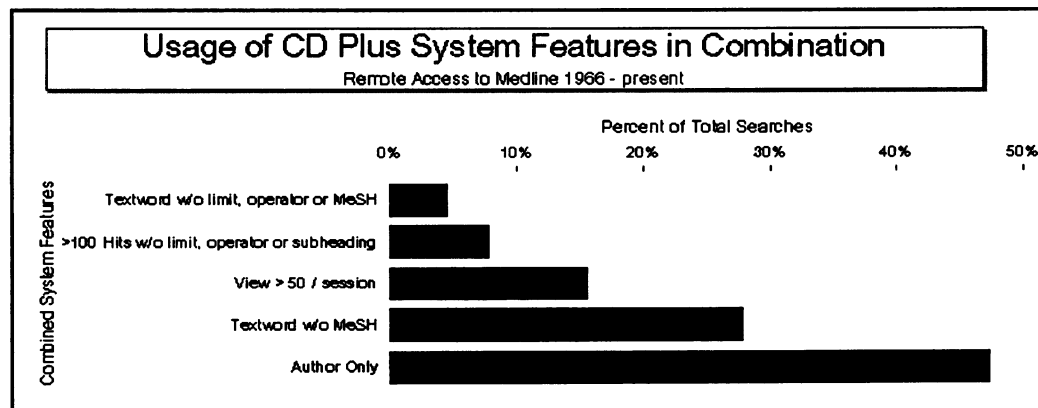


Figure 1